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AGILENT TECHNOLOGIES, INC.
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EXAMINER

MOORE, JAMES K

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/047,240

Applicant(s)

SNYDER ET AL.

Examiner

James K Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-66 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-13, 16-42, 44-46 and 49-65 is/are rejected.
- 7) ☒ Claim(s) 10, 14, 15, 43, 47, 48 and 66 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2,3.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 33 is objected to because of the following informalities: in line 3, "user" should be replaced with "users." Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-7, 9, 12, 17-23 and 25-27 are rejected under 35 U.S.C. 102(a) as being anticipated by Zhang (U.S. Patent Application No. 2001/0049263).

Regarding claim 1, Zhang discloses a method for monitoring, measuring and capturing transactions in a communication network experienced by a user of a communication device operating in the communication network. The method comprises monitoring a plurality of transactions (voice calls) occurring between a user of a communication device (mobile station 110) operating in a communication network (cellular network 120) and the communication network in accordance with a functional definition of a probe element (software) of the communication device. See paragraphs 24, 33 and 34. The transactions are a portion of the user's interaction with the communication network via the communication device, and the functional definition of

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the probe element is dynamically and remotely configured by the communication network via a communication link (140) between the communication device and the communication network. See paragraph 25 and 26. The method also comprises capturing the transactions in accordance with the functional definition of the probe element and measuring characteristics of the transactions to generate user interaction data (number of dropped calls, call completions and other information) in accordance with the functional definition of the probe element. See paragraphs 33 and 34.

Regarding claim 2, Zhang discloses all of the limitations of claim 1, and also discloses that the method comprises defining the functional definition of the probe element in accordance with the type of user interaction data desired to be generated for the communication device. See paragraph 26.

Regarding claim 3, Zhang discloses all of the limitation of claim 2, and also discloses that the method comprises downloading the probe element to the communication device from the communication network via the communication link. See paragraphs 26 and 27.

Regarding claim 4, Zhang disclose all of the limitations of claim 1, and also discloses that the method comprises transmitting the user interaction data to the communication network in response to the functional definition of the probe element or a request from the communication network. See paragraph 37.

Regarding claim 5, Zhang discloses all of the limitation of claim 1, and also discloses that the method comprises, prior to the monitoring, downloading the probe

element to the communication device from the communication network via the communication link. See paragraphs 26 and 27.

Regarding claim 6, Zhang discloses all of the limitations of claim 1, and also discloses that the communication device operates in a non-interactive mode of operation in which the user interaction data is generated in a manner that is transparent to the user of the communication device. See paragraph 33.

Regarding claim 7, Zhang discloses all of the limitations of claim 1, and also discloses that a network operator of the communication network dynamically control operation of the communication device in a diagnostic mode of operation in accordance with a diagnostic criterion (performance log). See paragraph 26.

Regarding claim 9, Zhang discloses all of the limitations of claim 6, and also discloses that when not in the diagnostic mode of operation the communication device operates in a non-interactive mode of operation during which the transactions are monitored and captured and the user interaction data is generated in a manner that is transparent to the user of the communication device. See paragraph 33.

Regarding claim 12, Zhang discloses all of the limitations of claim 7, and also discloses that the method comprises downloading the diagnostic criterion from the communication network to the probe element via the communication link. See paragraph 26.

Regarding claims 17 and 18, Zhang discloses all of the limitations of claim 1, and also discloses that the user interaction data comprises user profile data (number of dropped calls and call completions). See paragraph 34.

Regarding claim 19, Zhang discloses all of the limitations of claim 1, and also discloses that the method comprises programming the probe element with the functional definition (the software defines what aspects and features are to be monitored by the communication device). See paragraph 26.

Regarding claim 20, Zhang discloses all of the limitations of claim 19, and also discloses that the programming of the probe element is provided by the communication network. See paragraph 26.

Regarding claim 21, Zhang discloses all of the limitations of claim 20, and also discloses that the programming is provided by the communication network via the communication link and can be dynamically changed by the communication network. See paragraph 26.

Regarding claim 22, Zhang discloses all of the limitations of claim 21, and also discloses that the programming of the probe element is dynamically changed by the communication network via the communication link in response to the user interaction data. See paragraph 26.

Regarding claim 23, Zhang discloses all of the limitations of claim 1, and also discloses that the transactions comprise voice communications between the user of the communication device and the communication network. See paragraphs 23 and 24.

Regarding claim 25, Zhang discloses all of the limitations of claim 1, and also discloses that the method comprises transmitting the generated user interaction data from the communication device to a collection communication device (service center 130) of the communication network. See paragraph 37.

Regarding claim 26, Zhang discloses all of the limitations of claim 1, and also discloses that the method comprises receiving multiple user interaction data from additional communication devices in the communication network, aggregating the multiple user interaction data (e.g., at a base station) to generate aggregate user interaction data, and transmitting the aggregate user interaction data to the communication network via the communication link. See paragraph 30.

Regarding claim 27, Zhang discloses all of the limitations of claim 1, and also discloses that the method comprises transmitting the user interaction data to the communication network in response to the functional definition of the probe element or a request from the communication network, and analyzing the user interaction data to identify network performance problems of the communication network. See paragraphs 37, 41 and 42.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang in view of O'Riordain (U.S. Patent No. 6,434,364).

Regarding claim 11, Zhang discloses all of the limitations of claim 7, but does not disclose that the method comprises the user of the communication device granting permission to the network operator to control the communication device to perform diagnostic tests while in the diagnostic mode of operation.

O'Riordain discloses a system and method for monitoring communications experienced by a user of a communication device operating in a communication network. The method comprises a user of the communication device granting permission to a network operator to control the communication device to perform diagnostic tests while in a diagnostic mode of operation. This allows the network operator to gather performance data relating to operational conditions of communications devices at desired test locations, and provides the user with a discount for allowing the tests to be performed. See col. 2, lines 25-43 and col. 5, line 50 – col. 6, line 4. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Zhang with O'Riordain, such that the user of the communication device grants permission to the network operator to control the communication device to perform diagnostic tests while in the diagnostic mode of operation, in order to allow the network operator to gather performance data relating to operational conditions of communications devices at desired test locations, and provide the user with a discount for allowing the tests to be performed.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang in view of well known prior art.

Regarding claim 13, Zhang discloses all of the limitations of claim 12, but does not disclose that the communication link comprises the Internet. However, the examiner takes Official Notice that it is well known in the art to couple a cellular network to the service center of a service provider via the Internet, in order to take advantage of the pre-existing infrastructure of the Internet. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Zhang, such that the communication link comprises the Internet, in order to take advantage of its pre-existing infrastructure.

7. Claims 1, 7, 8, 16, 24, 27-42, 45 and 49-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborne (U.S. Patent No. 6,088,588) in view of Zhang.

Regarding claim 1, Osborne discloses a method for monitoring, measuring and capturing transactions in a communication network experienced by a user of a communication device operating in the communication network. The method comprises monitoring a plurality of transactions (call connection events) occurring between a user of a communication device operating in a communication network and the communication network in accordance with a functional definition of a probe element (software) of the communication device. The transactions are a portion of the user's interaction with the communication network via the communication device. The method also comprises capturing the transactions in accordance with the functional definition of the probe element and measuring characteristics of the transactions to generate user interaction data (event failures and related information) in accordance with the

functional definition of the probe element. See col. 1, lines 12-25; col. 2, lines 18-44; and col. 4, line 58 – col. 5, line 8. Osborne does not disclose that the functional definition of the probe element can be dynamically and remotely configured by the communication network via communication link between the communication device and the communication network.

Zhang also discloses a method for monitoring, measuring and capturing transactions in a communication network experienced by a user of a communication device operating in the communication network. The method comprises dynamically and remotely configuring the functional definition of a probe element of a communication device by a communication network via a communication link between the communication device and the communication network. This allows the communication network to remotely modify which aspects and features of the communication device's operation are to be monitored and reported. See paragraph 26. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Osborne with Zhang, such that the functional definition of the probe element can be dynamically and remotely configured by the communication network via communication link between the communication device and the communication network, in order to allow the communication network to remotely modify which aspects and features of the communication device's operation are to be monitored and reported.

Regarding claim 7, Osborne in view of Zhang teaches all of the limitations of claim 1, and Osborne also discloses that the method comprises a network operator of the communication network dynamically controlling operation of the communication

device in a diagnostic mode of operation in accordance with a diagnostic criterion. See col. 8, lines 25-54 and col. 8, line 66 – col. 9, line 17.

Regarding claim 8, Osborne in view of Zhang teaches all of the limitations of claim 7, and Osborne also discloses that the method comprises the network operator controlling the communication device to perform diagnostic tests of network performance problems capable of being monitored by the communication device in accordance with the diagnostic criterion. See col. 8, lines 25-54 and col. 8, line 66 – col. 9, line 17.

Regarding claim 16, Osborne in view of Zhang teaches all of the limitations of claim 1, and Osborne also discloses that the user interaction data comprises network engineering data (call event failures). See col. 1, line 66 – col. 2, line 44.

Regarding claim 24, Osborne in view of Zhang teaches all of the limitations of claim 1, and Osborne also discloses that the method comprises performing diagnostic tests of the communication network in a diagnostic mode of operation in accordance with a diagnostic criterion downloaded to the communication device from the communication network via the communication link in response to the communication network identifying network performance problems from the interaction data. See col. 2, lines 5-57.

Regarding claim 27, Osborne in view of Zhang teaches all of the limitations of claim 1, and Osborne also discloses that the method comprises transmitting the user interaction data to the communication network in response to the functional definition of

the probe element, and analyzing the user interaction data to identify network performance problems of the communication network. See col. 2, lines 5-11.

Regarding claim 28, Osborne in view of Zhang teaches all of the limitations of claim 27, and Osborne also discloses that the method comprises implementing changes to operation of the communication network to counter the identified network performance problems and improve communications in the communication network from the perspective of the communication device. See col. 2, lines 5-11.

Regarding claim 29, Osborne in view of Zhang teaches all of the limitations of claim 27, and it is inherent that Osborne's system performance analysis may comprise generating network performance problem reports comprising the network performance problems identified. See col. 2, lines 5-11.

Regarding claim 30, Osborne in view of Zhang teaches all of the limitations of claim 27, and Osborne also discloses that the method comprises the communication device performing diagnostic tests of the communication network in a diagnostic mode of operation in accordance with a diagnostic criterion downloaded to the communication device from the communication network via the communication link in response to the network performance problems identified during analysis of the user interaction data.

Regarding claim 31, Osborne in view of Zhang teaches all of the limitations of claim 27, and Osborne also discloses that transmitting the user interaction data to the communication network comprises transmitting the user interaction data to a collection communication device (a base station) of the communication devices. Furthermore, it is

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inherent that the data is transited to a server of a network operator of the communication network, where it is interpreted and acted on. See col. 2, lines 5-11.

Regarding claim 32, Osborne in view of Zhang teaches all of the limitations of claim 27, and Osborne also discloses that transmitting the user interaction data to the communication network comprises receiving multiple user interaction data from other communication devices in the communication network, aggregating the multiple user interaction data (at a base station) with the user interaction data to generate aggregate user interaction data, and transmitting the aggregate user interaction data to the communication network via the communication link. See col. 2, lines 5-11.

Regarding claim 33, Osborne discloses a method for improving communications of a communication network having a plurality of communication devices by which a plurality of corresponding users communicate in the communication network. The method comprises, for each communication device, monitoring a plurality of transactions (call connection events) occurring between a user of a communication device operating in a communication network and the communication network in accordance with a functional definition of a probe element (software) of the communication device. The transactions are a portion of the user's interaction with the communication network via the communication device. The method also comprises capturing the transactions in accordance with the functional definition of the probe element, measuring characteristics of the transactions to generate user interaction data (event failures and related information) in accordance with the functional definition of the probe element, and transmitting the user interaction data to the communication network

in response to the functional definition of the probe element or a request from the communication network. See col. 1, lines 12-25; col. 2, lines 18-44; and col. 4, line 58 – col. 5, line 8. The method also comprises the communication network aggregating the user interaction data received from the communication devices to generate statistical information about the communication network and analyzing the statistic information to identify network performance problems of the communication network. See col. 1, lines 35-49 and col. 2, lines 5-11. Osborne does not disclose that the functional definition of the probe element can be dynamically and remotely configured by the communication network via communication link between the communication device and the communication network.

Zhang also discloses a method for monitoring, measuring and capturing transactions in a communication network experienced by a user of a communication device operating in the communication network. The method comprises dynamically and remotely configuring the functional definition of a probe element of a communication device by a communication network via a communication link between the communication device and the communication network. This allows the communication network to remotely modify which aspects and features of the communication device's operation are to be monitored and reported. See paragraph 26. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Osborne with Zhang, such that the functional definition of the probe element can be dynamically and remotely configured by the communication network via communication link between the communication device and the communication

network, in order to allow the communication network to remotely modify which aspects and features of the communication device's operation are to be monitored and reported.

Regarding claim 34, Osborne in view of Zhang teaches all of the limitations of claim 33, and Zhang also discloses that the probe element may be downloaded to the communication device from the communication network via the communication link, prior to monitoring. See paragraph 26.

Regarding claim 35, Osborne in view of Zhang teaches all of the limitations of claim 33, and Osborne also discloses that the method comprises, after the analyzing, implementing changes to operation of the communication network to counter the identified network performance problems and improve communications in the communications network from the perspective of the users of the communication devices. See col. 2, lines 5-18.

Regarding claim 36, Osborne in view of Zhang teaches all of the limitations of claim 33, and it is inherent that Osborne's system performance analysis may comprise generating network performance problem reports comprising the network performance problems identified. See col. 2, lines 5-11.

Regarding claim 37, Osborne in view of Zhang teaches all of the limitations of claim 33, and Osborne also discloses that the functional definition of the probe element is defined in accordance with the type of user interaction data desired to be generated for the communication device. See col. 4, line 58 – col. 5, line 8.

Regarding claim 38, Osborne in view of Zhang teaches all of the limitations of claim 37, and Zhang also discloses that the probe element may be downloaded to the

communication device from the communication network via the communication link.

See paragraph 26.

Regarding claim 39, Osborne in view of Zhang teaches all of the limitations of claim 33, and Osborne also discloses that the communication device operates in a non-interactive mode of operation in which the user interaction data is generated in a manner that is transparent to the user of the communication device. See col. 8, lines 25-37.

Regarding claim 40, Osborne in view of Zhang teaches all of the limitations of claim 33, and Osborne also discloses that the method comprises a network operator of the communication network dynamically controlling operation of the communication devices in a diagnostic mode of operation in accordance with a diagnostic criterion. See col. 8, lines 38-54.

Regarding claim 41, Osborne in view of Zhang teaches all of the limitations of claim 40, and Osborne also discloses that the network operator controls the communications devices to perform diagnostic tests of the network performance problems capable of being monitored by the communication devices in accordance with the diagnostic criterion. See col. 8, lines 38-54.

Regarding claim 42, Osborne in view of Zhang teaches all of the limitations of claim 40, and Osborne also discloses that when not in the diagnostic mode of operation the communication devices operate in a non-interactive mode of operation in which the transactions are monitored and captured and the user interaction data is generated in a

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manner that is transparent to the users of the communication devices. See col. 8, lines 25-37.

Regarding claim 45, Osborne in view of Zhang teaches all of the limitations of claim 40, and Osborne also discloses that the method comprises downloading the diagnostic criterion from the communication network to the probe element via the communication link. See col. 8, lines 38-54.

Regarding claim 49, Osborne in view of Zhang teaches all of the limitations of claim 33, and Osborne also discloses that the user interaction data comprises network engineering data. See col. 2, lines 30-44.

Regarding claim 50, Osborne in view of Zhang teaches all of the limitations of claim 33, and Osborne also discloses that the user interaction data comprises user profile data. See col. 2, lines 30-44.

Regarding claim 51, Osborne in view of Zhang teaches all of the limitations of claim 33, and Osborne also discloses network engineering data and user profile data. See col. 2, lines 30-44.

Regarding claim 52, Osborne in view of Zhang teaches all of the limitations of claim 33, and Osborne also discloses that the probe element is programmed with the functional definition. See col. 4, line 58 – col. 5, line 8.

Regarding claim 53, Osborne in view of Zhang teaches all of the limitations of claim 52, and Osborne also discloses that the programming of the probe element is provided by the communication network. See col. 4, lines 58 – col. 5, line 8.

Regarding claim 54, Osborne in view of Zhang teaches all of the limitations of claim 53, and Zhang also discloses that the programming is provided by the communication network via the communication link and is capable of being dynamically changed by the communication network. See paragraph 26.

Regarding claim 55, Osborne in view of Zhang teaches all of the limitations of claim 54, and Zhang also discloses that the communication network may dynamically remove the probe element via the communication link. See paragraph 26.

Regarding claim 56, Osborne in view of Zhang teaches all of the limitations of claim 54, and Zhang also discloses that the programming of the probe element is dynamically changed by the communication network via the communication link in response to the user interaction data. See paragraph 26.

Regarding claim 57, Osborne in view of Zhang teaches all of the limitations of claim 33, and Osborne also discloses that the transactions comprises voice communications between the user of the communication device and the communication network. See col. 2, lines 30-44.

Regarding claim 58, Osborne in view of Zhang teaches all of the limitations of claim 33, and it is inherent that Osborne's communication device transmits the user interaction data to a server of the communication network, where it can be interpreted and acted upon. See col. 2, lines 5-11.

Regarding claim 59, Osborne in view of Zhang teaches all of the limitations of claim 33, and Osborne also discloses that analyzing the user interaction data is performed by a network operator of the communication network. See col. 2, lines 5-11.

Regarding claim 60, Osborne in view of Zhang teaches all of the limitations of claim 33, and it is inherent that Osborne's step of aggregating the user interaction data received from the communication devices comprises mapping the user interaction data to corresponding geographic locations occurring within the communication network to generate geo-centric statistical information associated with the geographic locations. See col. 1, lines 25-49 and col. 2, lines 5-18.

Regarding claim 61, Osborne in view of Zhang teaches all of the limitations of claim 33, and Osborne also discloses that the communication devices perform diagnostic tests of the communication network in a diagnostic mode of operation in accordance with a diagnostic criterion downloaded to the communication device from the communication network via the communication link in response to the network performance problems identified during analysis of the user interaction data. See col. 6, lines 28-62.

Regarding claim 62, Osborne in view of Zhang teaches all of the limitations of claim 33, and Osborne also discloses that transmitting the user interaction data to the communication network comprises transmitting the user interaction data to a collection communication device (a base station) of the communication devices. Furthermore, it is inherent that the data is transited to a server of a network operator of the communication network, where it is interpreted and acted on. See col. 2, lines 5-11.

Regarding claim 63, Osborne in view of Zhang teaches all of the limitations of claim 33, and Osborne also discloses that transmitting the user interaction data to the communication network comprises receiving multiple user interaction data from other

communication devices in the communication network, aggregating the multiple user interaction data (at a base station) with the user interaction data to generate aggregate user interaction data, and transmitting the aggregate user interaction data to the communication network via the communication link. See col. 2, lines 5-11.

Regarding claim 64, Osborne in view of Zhang teaches all of the limitations of claim 33, and Zhang also discloses that the method comprises a network operator of the communication network broadcasting a group functional definition to a group of communication devices which overrides the functional definition of each communication device. See paragraph 27.

Regarding claim 65, Osborne in view of Zhang teaches all of the limitations of claim 64, and Zhang also discloses that a collector communication device (base station) of the group receives the group functional definition and distributes the group functional definition to other communication devices of the group. See paragraph 27.

8. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Osborne in view of Zhang, and further in view of O'Riordain.

Regarding claim 44, Osborne in view of Zhang teaches all of the limitations of claim 40, but does not teach that the method comprises the user of the communication device granting permission to the network operator to control the communication device to perform diagnostic tests while in the diagnostic mode of operation.

O'Riordain discloses a system and method for monitoring communications experienced by a user of a communication device operating in a communication

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network. The method comprises a user of the communication device granting permission to a network operator to control the communication device to perform diagnostic tests while in a diagnostic mode of operation. This allows the network operator to gather performance data relating to operational conditions of communications devices at desired test locations, and provides the user with a discount for allowing the tests to be performed. See col. 2, lines 25-43 and col. 5, line 50 – col. 6, line 4. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Osborne and Zhang with O’Riordain, such that the user of the communication device grants permission to the network operator to control the communication device to perform diagnostic tests while in the diagnostic mode of operation, in order to allow the network operator to gather performance data relating to operational conditions of communications devices at desired test locations, and provide the user with a discount for allowing the tests to be performed.

9. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Osborne in view of Zhang, and further in view of well known prior art.

Regarding claim 46, Osborne in view of Zhang teaches all of the limitations of claim 45, but does not teach that the communication link comprises the Internet. However, the examiner takes Official Notice that it is well known in the art to couple a cellular network to the service center of a service provider via the Internet, in order to take advantage of the pre-existing infrastructure of the Internet. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify

Osborne in view of Zhang, such that the communication link comprises the Internet, in order to take advantage of its pre-existing infrastructure.

Allowable Subject Matter

10. Claims 10, 14, 15, 43, 47, 48 and 66 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Moore, whose telephone number is (703) 308-6042. The examiner can normally be reached on Monday-Friday from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold, can be reached at (703) 305-4379.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ken Moore

JKM

7/19/04

Charles Appiah
CHARLES APPIAH
PRIMARY EXAMINER